ACCORD

ADEMCO microtech

INSTALLATION INSTRUCTIONS

II1-1200 Issue B

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APPENDIX B : BELL-BOX CONNECTIONS

The terminal connections for various bell-box models are shown below.

Lynteck Ltd. - 120 LED / 120 Lexon.

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	HOLD +	TRG	HOLD -	TAMP R	STRB

Elmdene - Rapier 3000, 4000, 5000, 6000; Prima 100, 200, 300, 400, 500, 600; Starlight 020.

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	+ H	- R	- H	RTN	- ST

CQR Security - Sigma, Cequera, Cequera Plus and Ultima.

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	HOLD OFF +VE	SIREN TRIG	HOLD OFF -VE	A/T RET SIG	STROBE TRIG

Ventcroft Security - Vision, Classic and Spirit.

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	HOLD OFF +VE, STB +VE	TRIG -	HOLD OFF -VE	RTN	STB -

Flashguard - Xtra

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	SUPPLY +, STROBE +	TRIGGER	TAMP OUT	SUPPLY -	STROB -

C & K - Active Guard

Accord Terminals	BELL +	BELL -	BELL TAMP -	BELL TAMP - R	STRB
Bell Box Terminals	12V+, STRB +	S -	12V -, TAM 24 (left)	TAM 24 (right)	STB -

Note: Where two connections are specified for the bell box connection a 0W link should be made between the two terminals on the bell box PCB.

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APPENDIX A: SPECIFICATIONS

Panel Specification

Physical	*Width:*	*195 mm*
	Height:	*285 mm*
	Depth:	*90 mm*
Electrical	*Mains Input:*	*230 V a.c. (+10% -8%) 50 Hz*
	Stand-by Battery:	*Up to 7.2 Ahr 12 V Sealed Lead-Acid*
	Current Drain (control only):	*30 mA (normal use)*
	External Sounder Output:	*12 V – 500 mA max Switched –ve*
	Strobe output:	*12 V – 250 mA max Switched –ve*
	Aux Power Output:	*12 V – 500 mA max*
	Trigger Output:	*12 V – 5 mA max (Normally 0 V)*
Fuses	*Mains:*	*100 mA (IEC 127) 20 mm*
	Battery:	*1 A – 20 mm Anti-surge (F1)*
	Keypad/Aux Power:	*500 mA – 20 mm Anti-surge (F2)*
	Bell:	*500 mA – 20 mm Anti-surge (F3)*

Note: Due to continued product development and improvements these specifications may change without notice.

Remote Keypad Specification

- Connected via a three wire terminal block on the back of the keypad
- Built in piezo warning sounder

Physical	*Width:*	*120 mm*
	Height:	*120 mm*
	Depth:	*25 mm*
Electrical	*Voltage Input:*	*12 V d.c.*
	Current Drain:	*42 mA (normal use)*
		77 mA (worst case)

Handing the System Over to The User

Fill In the User Instructions!

A User Instructions card comes with every Accord panel which explains each end–user function in an easy to understand format. The Installation engineer should fill in the section **How Your Alarm System is Programmed** on pages 7 and 8 of the user booklet.

To minimise false alarms and unnecessary call outs it is important that the user is familiar with the operation of the system. It is strongly recommended that the engineer explains fully the operation of the system to the user.

SECTION 1: WIRING AND SAFETY INFORMATION

Wiring and Safety Information

It is essential that this product is installed correctly, in particular with respect to a persons safety and connection to the mains electricity supply.

This product is not suitable for installation, maintenance or connection by the user; installation and maintenance must be carried out by a competent, qualified installer, for example, BS5750 or NACOSS approved.

It is a condition of the product's approval that the installer complies with the following.

Siting

The control panel enclosure must be sited indoors in a secure area where it cannot be readily interfered with, but in a location where there is adequate ventilation, ample light and easy access for servicing and maintenance. It is **not** suitable for siting externally or in harsh environments where it could be subject to high humidity, extremes of temperature, chemical atmospheres, high dust levels, or in a position where it may be subject to being dripped on, or splashing by, water or other fluids.

Fixing

The enclosure base must be securely fixed to a vertical, smooth, solid surface which is part of the fabric of the building. The position chosen must allow the cabinet door to be removed and allow unhindered access for installation and maintenance.

Ventilation

While the control panel has been designed so that no part attains an unsafe temperature, it is important that adequate ventilation is provided around the cabinet; therefore heat-radiating equipment or other sources of heat should not be positioned close to the cabinet.

Cabling

The product has high voltage barriers between the mains supply and the alarm wiring terminals. It is essential that these barriers are maintained in the way the cables enter the cabinet, are routed inside the cabinet and are routed externally.

Rear entry points are provided for cable entries; additional holes must not be cut in the enclosure. Where necessary, the cable must be protected at the entry point by the use of grommets. Alarm system cables must not be allowed to loop inside the cabinet – they must be neatly trimmed.

The cables external to the cabinet must be either firmly affixed to the fabric of the building using suitable clips or saddles, or mechanically protected in conduit or trunking. It must not be possible to put strain on the wiring within the control cabinet by pulling on cable external to the cabinet.

Knockouts must only be removed if cables are to enter the cabinet at that point. The hole must be covered by the trunking or conduit or by means of a blanking grommet.

It must not be possible to push a finger or similar size object or instrument into any hole or cable entry point.

Mains Supply Connections

The connection to the a.c. mains supply must be made by a competent, qualified person, for example NICEIC approved, in accordance with the current IEE and local supply regulations.

A means of isolation from the mains supply must be provided within two meters of the control. This is normally a fused spur fitted with a 3 A fuse.

Where a flexible cable is connected to the control having cores coloured brown and blue, it is important to connect the wires according to the following code:

Blue: Neutral – connect to terminal **N**
Brown: Live – connect to terminal **L**

Where a non-flexible cable is connected to the control having cores coloured red with black sleeves, it is important to connect the wires according to the following code:

Black: Neutral – connect to terminal **N**
Red: Live – connect to terminal **L**

The insulation of each conductor must be prepared and connected such that no part of the bare conductor is visible or protruding outside the terminal block, and in the case of standard conductors, that all the strands are twisted together and firmly clamped in the terminal. The outer covering insulation must be clamped under a cable clamp. It is important that this cable enters the control panel enclosure through the mains entry hole provided, is not looped within the control panel enclosure and does not run close to other system cables inside or external to the enclosure.

The control panel enclosure must not be opened before isolating the mains supply. The green Illumination of the green power LED indicates the presence of a.c. mains supply. The cover must be securely fitted in normal use.

Cable Type

The conductors of the mains supply cable must have a minimum cross-sectional area of 0.75 mm and the insulating material on each conductor must be a minimum of 0.4 mm thick Polyvinyl Chloride (PVC). Flexible cables must conform to the requirements of BS6500 and IEC Publication 227. Non-flexible electrical installation cables must conform to BS6004.

SECTION 5: SYSTEM INDICATIONS AND WHAT THEY MEAN

Power LED

The Power LEDs on the control panel (LED 1) and the keypad, see Figure 1.1, signal the state of the a.c. mains supply to the system.

On – indicates no problems with the a.c. mains supply.

Off – indicates a.c. mains failure.

Tamper

If the tamper LED on the keypad(s) is lit this indicates a problem on the tamper zone.

Day LEDs

ON – indicates that the system is unset.
Flashing – indicates the system is setting, extinguishes when the system is set.

Zone LEDs

ON – indicates that this zone has caused an alarm condition, or has been successfully tested if you are in the Test mode, or the zone is not clear during the setting procedure.

Flashing – this means that the zone has been Isolated.

Off — this is the normal condition for zone LED's.

Keypad lock-out is indicated by two illuminated zone LEDs on the keypad scrolling up and down in opposite directions (see page 19).

Viewing the Log [0]

To view the 16-event zone activation Log:

- Enter your User Code and press 0.
- The LED corresponding to the zone most recently activated lights and the keypad beeps once.
- The system works its way through the history of the zone activations.
- If a zone has been activated two or more times in succession the zone LED will remain lit and a beep will be heard for each activation.
- Keypad panic conditions are indicated by all Zone LEDs lighting together.
- The keypad beeps twice in rapid succession at the end of the Log display.

Fuses

The mains fuse within the cabinet is rated at 100 mA.

The mains supply **must** be disconnected before opening the cabinet and changing the fuse. Replace the mains fuse with the same type and rating, that is:

Rating:	100 mA anti-surge (T).
Construction:	Glass cartridge.
Dimensions:	20 mm length, 5 mm diameter.
Conformance:	BS EN 60127-2 and IEC127-2.

There are three on board fuses:

- **F1** Battery: 1A — 20mm, Anti-surge.
- **F2** Keypad/Aux power: 500 mA — 20mm, Anti-surge.
- **F3** Bell: 500 mA — 20mm, Anti-surge.

Equipment Electrical Rating

The control equipment is designed to operate on a UK mains supply of 240 Volts a.c. (230 V +10% –8%) at a frequency of 50 Hz. It is not suitable for other types of supply. The maximum current consumption in normal use is 80 mA.

Batteries

The battery used with the control panel must be a 12 V sealed lead-acid rechargeable battery of up to 7.2 Amp-hour capacity. The battery must be positioned on the battery shelf. The battery leads must be connected to the battery observing terminal polarity and not left hanging near the mains terminal block .

For example, to programme User Code 2 as 2626:

- Enter the Master User Code.
- Press: 8 2 2626.
- Two beeps confirm that the new code has been accepted.
- User Code 2 is now 2626.

Removing a User Code From the System

Users can remove their own user codes from the system. To remove your User Code, enter your code, select the codes option by pressing 8, press the appropriate key for your user number and press the * (Escape) key.

For example, to delete User Code 2 from the system User 2 should:

- Enter user two's User Code.
- Press: 8 2 *.
- Two beeps confirm that the User Code has been deleted.
- User two has been removed from the system.

Notes: The Master User Code (User 1) can delete the other seven User Codes.
The Master User Code can not be deleted.
The Engineer Code can not be deleted.

Enabling the Chime Facility [9]

Any zone can be programmed to Chime (two beeps from the keypad and internal sounder) when it is activated (opened).

Enabling the Chime function On Zones

To enable the Chime function on a zone or zones: enter your User Code, select the Chime option by pressing 9 (Chime) and press the appropriate keys for the zones you wish to chime.

For example, to enable the Chime function on zones three and five:

- Enter your User Code.
- Press: 9 3 5.
- Two beeps confirm that the Chime function has been assigned to these zones.
- Zones three and five now have the Chime option enabled.

Disabling the Chime Function On All Zones

To disable the Chime function on all zones, enter your User Code, select the Chime option by pressing 9 (Chime), then press the * key.

Note: The Chime function cannot be disabled on individual zones.

Isolating Zones [6]

To Isolate (omit) one or more zones enter your code then press the 6 (Isolate) key; press the Zone Number(s) you wish to Isolate; after five seconds the control panel exits from Isolate mode and the selected zones are isolated, for example:

- Enter a User Code.
- To isolate zone 8 press 6 8.
- Zone LED eight on the keypad now flashes.

or,

- To isolate zones six, seven and eight press 6 678.
- Zone LEDs six, seven and eight now flash.

To delete all the zones from the Isolation list enter your User Code, press the 6 (Isolate) key and then press the ✶ (Escape) key.

Once you have successfully isolated zones you can set the system in the normal way. When you next unset the system all zones will be restored to normal (un–isolated) operation.

Changing Codes [8]

The Accord alarm system can have up to eight User Codes. User 1 is the Master User of the system. The Master User Code is needed to programme new User Codes into the system.

Reprogramming Your Code

To reprogramme your code, enter it at a keypad, select the codes option by pressing 8, select your user number and enter the new code.

The Master User Code is code 1, the Engineer Code is code 0.

Note: The engineer must change his code from Day Mode.

For example, to change the Master User Code (Code 1) to 5678:

- Enter the Master User Code.
- Press: 8 1 5678.
- Two beeps confirm that the new code has been accepted.
- The Master User Code is now 5678.

Note: The Master User Code defaults to 1234, the Engineer Code defaults to 9090.

The Master User Code can reprogramme the other seven user codes. Only the Master User Code can be used to reprogramme the Master User Code.

Only the Engineer code can be used to reprogramme the Engineer Code.

Programming New User Codes

To programme in an new User Code enter the Master User Code, select the codes option by pressing 8, press the appropriate key to select the User Code (2 — 8) and enter the new code number.

SECTION 2: INSTALLING THE ACCORD

Fixing the Enclosure

The two parts (lid and base) of the Accord control panel enclosure are connected by:

- Five pillars on the enclosure lid with corresponding holes in the enclosure base.
- A clip connection and fixing screw connection for the bottom of the enclosure lid and base.

Note: Leave about 60 mm above the control panel enclosure to enable the enclosure lid to move on its hinges for removal and replacement.

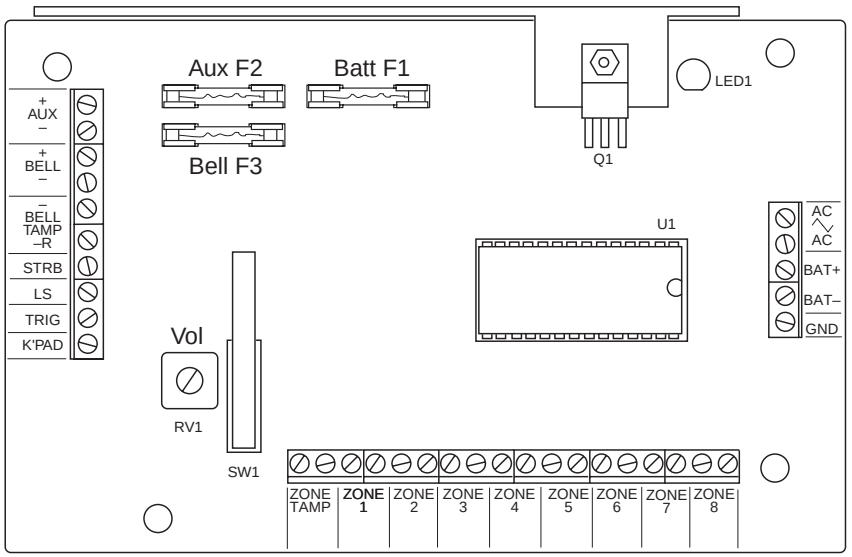

Figure 2.1 Accord PCB Layout.

Use the keyhole slot in the enclosure base to position the control panel enclosure. All cables should be brought into the enclosure base via the cable entry points shown in Figure 2.2. There is a raised, outer, plastic rim with a number of snap-outs for the entry of trunking. Once all cable entries have been made secure the control panel firmly in place using the two mounting holes at the bottom of the control panel enclosure.

The user instructions can be held behind the enclosure using the User Instuctions retaining clip, see Figure 2.2.

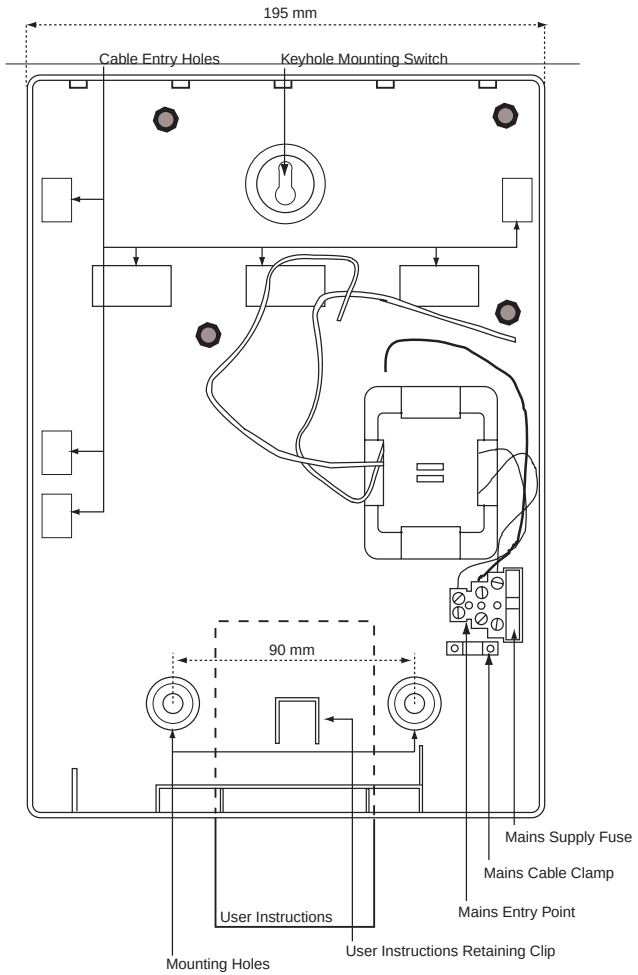

Figure 2.2 Enclosure Base Layout.

Spares Pack

The Accord control panel comes with a spares pack. This contains ten zone links, five mounting pillars and the battery connector leads.

Night Set [3]

To Night Set the system:

- Enter your User Code then press the 3 (Night Set) key.
- This starts the setting of the system using the Night Set zone programming. This allows a sub-set of the system to be set.
- The Day LED will flash during the Exit Time.
- To cancel the setting procedure press the ✶ (Escape) key.
- Once the system sets two confirmation beeps are emitted by the keypad and internal speaker†; after this the ✶ (Escape) key does not function.

† The activation of the keypad buzzer and internal speaker are dependant on the programming of Programming Group 4 — Option 4 Part Set Exit Warning.

Easy Set – allows users to Night Set the system without entering their User Code. If Easy Set is programmed you may set the system by pressing the # key, then the 3 (Night Set) key. See SECTION 3: Programming the Accord; Group 4 — Option 8 Easy Set.

Unsetting

To Unset the system the user should go to the keypad via the agreed entry route and enter their User Code.

Unsetting After or During an Alarm

On the keypad the LED corresponding to the first zone to go into alarm illuminates. Entering a User Code stops any alarm that is in progress. To reset the system enter the User Code again.

Note: If Engineer Reset for Alarms is enabled only the Engineer Code can reset the system after an alarm condition. See Section 3: Programming the Accord; Group 5 — Option 3 Engineer Reset for Alarms.

Engineer Setting and Unsetting

The Engineer Code can be used to set the system (Full, Part or Night). It can **only** be used to unset the system when it was previously used to set it.

Testing the System [5]

To Test the zones and outputs on the system enter your code then press the 5 (Test) key.

The Bell output, LEDs 1 — 8 and the Tamper LED on the keypad, will activate for five seconds. The Strobe output flashes until the test is finished.

Once the keypad LEDs have deactivated test each zone in turn, activate the zone and verify that the corresponding LED on the keypad illuminates and you hear two beeps from the keypad.

To exit test mode enter your code, the keypad beeps twice to confirm.

SECTION 4: OPERATING THE ACCORD

Setting and Unsetting the system

Before setting the system:

- Ensure all doors and windows are secure.
- Ensure that none of the movement detectors are obstructed.

Full Set [1]

To Full Set the system:

- Enter your User Code then press the 1 (Full Set) key.
- A constant exit tone is heard which changes to a broken tone as you pass the detectors (except Final Exit zones) on the exit route.
- The Day LED will flash during the Exit Time.
- To cancel the setting procedure press the ✶ (Escape) key.
- Once the system sets two confirmation beeps are emitted by the keypad and internal speaker; after this the ✶ (Escape) key does not function.

Easy Set – allows users to Set the system without entering their User Code. If Easy Set is programmed you may set the system by pressing the # key, then the 1 (Full Set) key. See SECTION 3: Programming the Accord; Group 4 — Option 8 Easy Set.

Part Set [2]

To Part Set the system:

- Enter your User Code then press the 2 (Part Set) key.
- This starts the setting of the system using the Part Set zone programming. This allows a sub-set of the system to be set.
- The Day LED will flash during the Exit Time.
- To cancel the setting procedure press the ✶ (Escape) key.
- Once the system sets two confirmation beeps are emitted by the keypad and internal speaker†; after this the ✶ (Escape) key does not function.

† The activation of the keypad buzzer and internal speaker are dependant on the programming of Programming Group 4 — Option 4 Part Set Exit Warning.

Easy Set – allows users to Part Set the system without entering their User Code. If Easy Set is programmed you may set the system by pressing the # key, then the 2 (Part Set) key. See SECTION 3: Programming the Accord; Group 4 — Option 8 Easy Set.

Assembling the Control Panel Into the Enclosure

1. Insert the four plastic PCB support pillars into the four holes in the enclosure base, see Figure 2.2.
2. Place the main PCB on top of the pillars so that the tops of the pillars locate into the PCB mounting holes.
3. Carefully apply pressure to the PCB in the area immediately surrounding each of the PCB mounting holes using two thumbs so that the PCB rests firmly onto the shoulders of the pillars.

Note: Excessive pressure on the PCB will cause irreparable damage.

SW1 — Accord Tamper

Switch SW1 on the Accord control panel PCB is the control tamper. Removing the enclosure lid releases the tamper switch; this causes a tamper alarm if the system is not in Programming Mode.

RV1 — Loudspeaker Volume

The variable resistor RV1, see Figure 2.1, alters the volume of the loudspeaker output from the control panel.

Note: This affects the volume of the exit/entry tones from the output but not the Alarm tones.

Zone Links

The eight zones, the zone tamper and the bell tamper circuits can be shorted using the Zone Links provided in the spares pack. It is strongly recommended that this is done if any the these circuits are not to be used.

Connections to the Accord

Mounting and Wiring the LED Remote Keypad

To mount and wire the Accord LED keypad:

1. Press down the two base clips recessed on top of the keypad while gently pulling the two halves of the case apart.
2. Route the wiring from the Control Panel through the Cable Entry Hole on the back case. Use Knockout Holes A or B if alternative routes are necessary. *Tip: Use a knife to help dislodge knockouts*.
3. Securely mount the back case to a wall or electrical box via the mounting holes. Ensure The Tamper Tab is securely screwed down.
4. The remote keypad PCB should be wired to the control panel PCB as outlined in Table 2.1 LED Keypad Wiring.
5. Re-attach the keypad front to the back case by inserting the hinges on the keypad front into the hinge retainers on the bottom of the keypad back case. Gently apply pressure to the keypad front until the two retaining tabs click firmly into place.

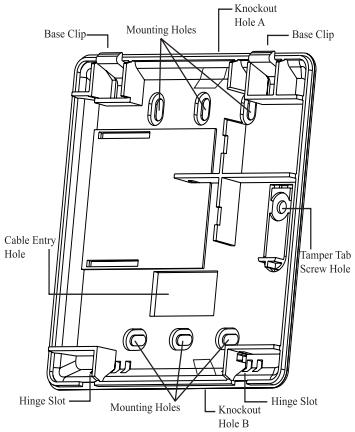

Fig 2.3 Accord LED Keypad

Panel	Keypad
Aux +	+ ve
Aux –	– ve
K'PAD	kpad

Table 2.1 LED Keypad Wiring.

Note: The keypad volatage should be at least 12.5V.

Keypads can be wired to the control panel independently, in series, or in a star configuration. Up to four keypads can be connected.

walk Through zones are isolated during the Entry Time. This gives users access to a keypad or keyswitch.

If a Walk Through zone is activated while the system is Full Set it causes a full alarm.

5 — 24 Hour Tamper

The 24 Hour Tamper zone type is used for system/module tampers and for zones covering sensitive areas such as stock rooms, fire doors, external bell box, etc.

If a 24 Hour Tamper zone is activated while the system is Unset the keypads sound and the corresponding zone LED on the keypad illuminates, the external sounders do **not** operate.

It is strongly recommended that a zone programmed as 24 Hour Tamper is programmed in one of the following ways:

- Programmed as 24 Hour Tamper in Groups 1 (Full Set), 2 (Part Set) and 3 (Night Set).
- Programmed as 24 Hour Tamper in Group 1 (Full Set), and, 0 (Not Used) or 24 Hour Tamper in Groups 2 (Part Set) and 3 (Night Set).

The programming of a zone in Group 1 (Full Set) also covers the unset condition.

7 — PA Audible

The PA Audible zone type is assigned to a Panic Button and will initiate a full alarm condition.

It is strongly recommended that a zone programmed as PA Audible is programmed in one of the following ways:

- Programmed as PA Audible in Groups 1 (Full Set), 2 (Part Set) and 3 (Night Set).
- Programmed as PA Audible in Group 1 (Full Set), and, 0 (Not Used) or PA Audible in Groups 2 (Part Set) and 3 (Night Set).

The programming of a zone in Group 1 (Full Set) also covers the unset condition.

9 — Fire

The Fire zone type is used for fire detection devices with normally closed outputs. No means of smoke detector re-set is provided by the control panel.

It is strongly recommended that a zone programmed as Fire is programmed in one of the following ways:

- Programmed as Fire in Groups 1 (Full Set), 2 (Part Set) and 3 (Night Set).
- Programmed as Fire in Group 1 (Full Set), and, 0 (Not Used) or Fire in Groups 2 (Part Set) and 3 (Night Set).

The programming of a zone in Group 1 (Full Set) also covers the unset condition.

Activation of a Fire zone at any time causes the Loud-Speaker, keypad sounder and Bell outputs to pulse on and off.

Zone Type Definitions

General Information

The Accord has eight zone types, these are:

0 = Not Used
1 = Final Exit (FX)
2 = Keyswitch
3 = Intruder (Alarm)
4 = Walk Through (IX)
5 = 24 Hour Tamper
7 = PA Audible
9 = Fire

1— Final Exit

The Final Exit zone type is used for the entry/exit route(s), they are usually assigned to the front door or other main entry point(s). The zone becomes operational when the system is set or setting.

For a Final Exit zone type to terminate a Full Setting procedure the Exit Time must be set to infinite (410).

Activation of a Final Exit zone while the system is set initiates the unsetting procedure; the keypads beep and all Walk Through zones are isolated. A valid User Code must be entered at the keypad, or a Keyswitch zone activated, before the Entry Time has elapsed.

If the system is Part Set or Night Set then the Exit Time is fixed at 30 seconds.

2 — Keyswitch

The Keyswitch zone type is used to allow a keyswitch to Full Set the system. It has a latching operation.

The keyswitch should be wired across the zone terminals; opening the Keyswitch zone (open circuit) will start the Full setting procedure; closing the Keyswitch zone (closed circuit) performs an instant unsetting of the system.

It is strongly recommended that the keyswitch should be fitted in a tamper protected case with the tamper switch connected in series with the other tamper circuits at the control panel.

3 — Intruder

The Intruder zone type is used on devices which require an instant alarm if activated when the system is Set. During the Set state zone activations cause internal sounders and external sounders to activate.

4 — Walk Through

The Walk Through zone type is used with the Final Exit zone type; when the system is set and a Final Exit zone is activated the unsetting procedure is initiated and all

Connecting the External Sounders

Connections for Self Actuating Bells and Bell/Siren combinations should be made as outlined in Table 2.2 Connections for SABs and Table 2.3 Connections for Bell/Siren Only.

Connections for SAB

Panel	Bell
BELL +	Positive Supply/Hold Off
BELL –	Trip/Signal Negative
BELL TAMP –	Negative Supply/Hold–Off
BELL TAMP – R	Negative Tamper Return
STRB	Strobe Negative Signal

Table 2.2 Connections for SABs.

Connection for Bell/Siren only

Panel	Bell
BELL +	Bell & Strobe Positive
BELL -	Bell Negative
BELL TAMP -	Tamper SW Common
BELL TAMP - R	Tamper SW N/C
STRB	Strobe Negative

Table 2.3 Connections for Bell/Siren only.

Connecting Power to the System

Mains Power

Mains power for the system is 230 V a.c. 50 Hz (a 24-hour unswitched source). The three-core mains cable should be brought into the control cabinet through the mains entry point under the mains terminal block. The mains cable should be wired to the three-way mains input terminal block. The secondary of the mains transformer should be connected to the two terminals on the control panel PCB marked **AC**. No connection should be made to the GND terminal on the Accord PCB.

Note: Do **not** apply power to the transformer at this point.

Stand-by Battery

The system can be protected against mains failure by the addition of a Stand-by battery; a maximum rating of 7.2 Ahr should be used.

Calculate the system quiescent current draw and multiply this by the number of hours you require for stand-by cover, for example, 200 mA × 12 hours = 2.4 Ahr. Install the next battery size up, in this case 2.8 Ahr.

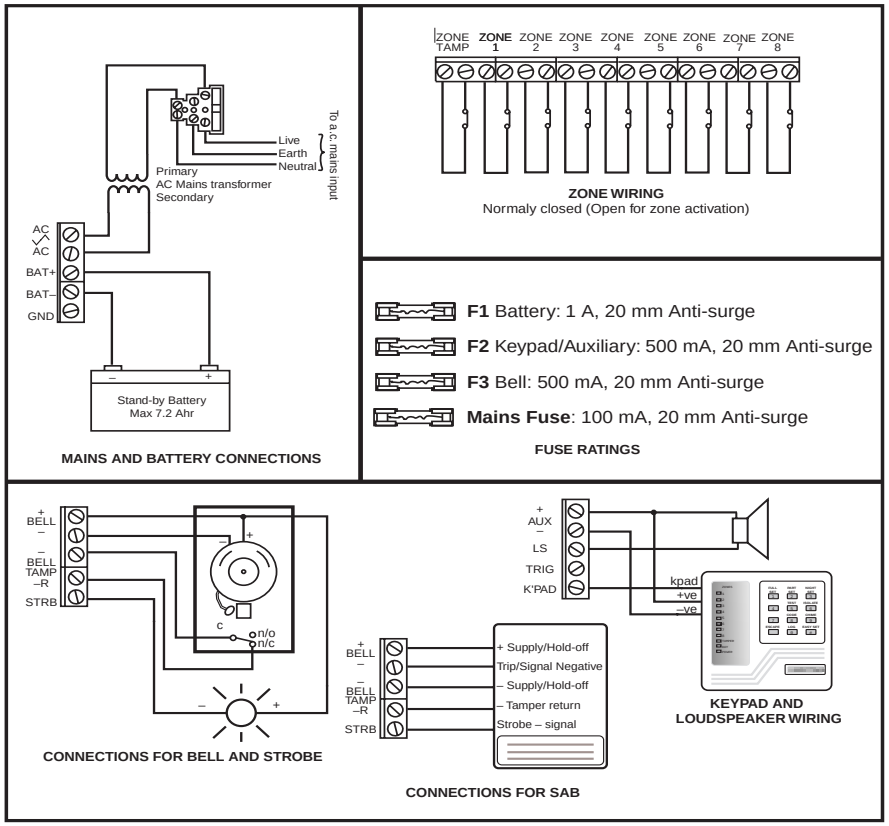

Figure 2.4 Connections to the Accord.

Testing the Installation

Power-up and Initial Test Procedure

When the Accord control panel has been installed in accordance with the preceding safety and wiring instructions the system should be tested. The test procedure is outlined below.

Note: Before the test commences all auxiliary devices such as powered sensors (PIRs), remote keypads, alarm sounders, etc, must be connected.

The Stand–by battery should **not** be connected at this point.

Group 5 — Option 4 Keypad Panic

When enabled (set to 1) this option gives a double-push panic button facility on the keypad. Both the ✶ and # buttons must be held down for two seconds to generate the panic alarm. The panic condition is indicated by all zone LEDs on the keypad(s) activating.

Panic Alarms are affected by system option 5.3.1 Engineer Reset for Alarms.

Group 5 — Option 5 Keypad Lockout

When enabled (set to 1) this option locks-out the keypad if 20 keys are pressed without a valid code being entered. This lockout lasts for 10 minutes. Keypad lock-out is indicated by two illuminated zone LEDs on the keypad scrolling up and down in opposite directions.

A keypad lockout may be cancelled by operating a zone programmed as keyswitch.

Group 5 — Option 6 Bell Output

When set to 0 the Bell output is positive removed (negative applied) — set to 0 by default.

When set to 1 the Bell output is positive applied (negative removed).

Group 5 — Option 7 Trigger Output

When set to 0 the Trigger output defaults to positive removed (negative applied) — set to 0 by default.

When set to 1 the Trigger output is positive applied (negative removed).

System Programming — Group 9 Factory Defaults

The control panel programming can be reset to the factory defaults. This is done from Programming Mode by pressing 981.

If the Engineer or Master User Codes have been lost they can be defaulted separately from the rest of the system. This is done from Day Mode:

- Power down the control.
- Re-power the control.
- Hold down ✶ and # keys together until two beeps are heard.

The Engineer Code is now 9090 and the Master Code is 1234.

SYSTEM OPTIONS		
GROUP	**OPTION**	**DEFAULT**
9	8=Set Factory Defaults (0=No, 1=Yes).	(0)

Table 3.10 Group 9 System Options.

System Programming — Group 5 System Options

- The first digit entered is 5 for System Options.
- The second digit is the required system option 1 — 7.
- The third digit is the option value.

Note: All Group 5 programming options default to disabled (0).

SYSTEM OPTIONS		
GROUP	OPTION	DEFAULT
5	1=Audible Warning of AC Loss (0=No, 1=Yes).	(0)
5	2=Supplementary Entry (0=No, 1=Yes).	(0)
5	3=Engineer Reset for Alarms (0=No, 1=Yes).	(0)
5	4=✶ + # Keypad Panic (0=No, 1=Yes).	(0)
5	5=Keypad Tamper Lockout (0=No, 1=Yes).	(0)
5	6=Bell Output (0=Neg. Applied, 1=Neg. Removed).	(0)
5	7=Trigger Output (0=Neg. Applied, 1=Neg. Removed).	(0)

Table 3.9 Group 5 System Options.

Group 5 — Option 1 Audible Warning of AC Loss

When enabled (set to 1) an audible indication is given from the keypad horn that an a.c. mains failure has occurred; the Loudspeaker output **LS** also activates. Visual indication is always given by the deactivation of the power LEDs on the keypad(s) and the control panel. No audible indication is given when the system is set.

When disabled no audible indication is given.

Group 5 — Option 2 Supplementary Entry

When disabled (set to 0) an alarm condition occurs if the system has not been unset at the end of the Entry Time.

When enabled (set to 1) an Internal only alarm occurs if the system has not been unset at the end of the Entry Time (Trigger, Bell and Strobe outputs do not activate). The Internal Only alarm will run for 30 seconds; if the system has not been unset at the end of this time a full alarm will occur.

Group 5 — Option 3 Engineer Reset for Alarms

When disabled (set to 0) this option allows the user to reset the system after alarm activations.

When enabled (set to 1) the alarm activations may be cancelled by a User Code but the Engineer Code is required to reset the system.

1. Apply input power to the mains transformer.
2. Check that the Auxiliary Voltage at terminals **AUX +** and **AUX –** on the main terminal strip measures between 13.5 V and 14 V d.c. If the auxiliary voltage is under 13.5 V too much current is being drawn. For the current consumption of the control panel and keypads see Appendix A.
3. If the auxiliary voltage is between 13.5 V and 14 V d.c. connect the battery to the Battery Terminals, observing the correct polarity.

Further Test Procedure

Once the control panel has been installed, and the power up and initial test procedure have been performed, it is advisable to check the keypad(s) and ancillary devices are operating correctly.

To test the keypad:

- Press 1234 1 – Panel starts to Set.
- Press ✶ (Escape) – Panel Escapes from the setting routine.

This ensures that the keypad and control are communicating with each other correctly. Test each keypad in this manner.

To test the detectors see Section 4: OPERATING THE ACCORD SECURITY SYSTEM; Testing the Alarm System [5].

Wiring the Zones

The zone terminals should be connected to a normally closed contact. Unused zones should be shorted across the terminal using the zone links provided.

SECTION 3: PROGRAMMING THE ACCORD

Getting In and Out of Programming Mode

All zone and system programming must be carried out from Programming Mode. To enter Programming Mode enter the Engineer Code and press the # key, then press the Star (✶) key.

Note: The Engineer Code defaults to **9090**.

The keypad beeps twice, the Day LED goes out, and the power LED on the keypad flashes to indicate that the system is in Programming Mode.

To exit from Programming Mode press the # key followed by the ✶ key; the power LED on the keypad stops flashing and the Day LED activates.

To default the Master User (Default 1234) and Engineering (Default 9090) codes, press the ✶ and # keys simultaneously for approximately 2 seconds either within 5 seconds of power up or within 5 seconds of leaving Engineering Mode. The keypad will emit a double beep when this has been accepted. Additionally, if any key is pressed within 5 seconds of leaving Engineering Mode this period is extended for a further 5 seconds.

Note: If **Group 5 - Option 4 Keypad Panic** is enabled then pressing the ✶ and # keys simultaneously at any time other than those mentioned above will activate the keypad panic facility. The keypad panic will not operate within 5 seconds of either power up or leaving Engineering Mode.

The Programming Format

To make the programming of the Accord as simple as possible an easy to use programming format has been adopted. Each system parameter has been allocated to a Programming Group; to programme a parameter select the programming group, select the parameter, enter the desired value. Each of the three steps involves just one key press. The Programming Groups are listed below.

Programming Groups

Key 1: Group 1 = Full Set Options

Key 2: Group 2 = Part Set Options

Key 3: Group 3 = Night Set Options

Key 4: Group 4 = System Options

Key 5: Group 5 = System Options

Key 9: Group 9 = Set Factory Defaults

To programme a parameter select the programming group from the list above. Enter the second digit to choose the zone number, zone option, or system option to be modified. Enter the third digit to programme the zone type, zone option or system option setting.

To view the options for a group enter the Engineer Code then the group number followed by 0, 0. The values for each option will be displayed in sequence.

Note: If the control beeps twice the information has been correctly entered.

If the control beeps three times after making a programme entry either the entry was invalid or too much time was taken to enter the information.

471 = 0 V Detector Reset

This output type is used to provide the negative supply to devices such as Viper vibration sensors. The 0 V supply is removed for five seconds when the setting procedure is initiated to ensure devices are reset before the system sets. After an alarm activation, the 0 V will be removed when the system is reset to clear any latched conditions.

472 = Set Latch Positive

This output type is used with latching PIRs. The output is set to 0 V switching to 12 V when the first of the following occur:

- Alarm Condition.
- Entry Timer is Started.
- System is Unset.

473 = Alarm

This sets the output to 12 V switching to 0 V when any of the following occur:

- Alarm Condition.
- Panic Alarm.
- Fire Alarm.

This output may be used to trip a speech dialler or a transistorized relay for control of auxiliary equipment. The alarm trigger can also be inverted so that it is normally 0 V switching to 12 V, see Programming Group 5 Option 7 Trigger Output.

Group 4 — Option 8 Easy Set

When enabled (set to 1) this option allows users to set the system without entering their user code — this option is disabled by default.

Users set the system by pressing the # key then one of the: Full Set (1), Part Set (2), or Night Set (3) keys. The system has the same Exit Times as ordinary (non easy-set) sets.

A valid User Code is still required to Unset the system.

PART SET EXIT WARNING — **440 SILENT**				
	EXIT TONE	FAULT TONE	FAULT TONE AT END OF EXIT TIME	COMFORT TONE
Part Set	None	None	Keypad only	Keypad only
Night Set	None	None	Keypad only	Keypad only

Table 3.6 Part Set Exit Warning 440 Silent.

PART SET EXIT WARNING — **441 KEYPAD BUZZER ONLY**				
	EXIT TONE	FAULT TONE	FAULT TONE AT END OF EXIT TIME	COMFORT TONE
Part Set	Keypad only	Keypad only	Keypad only	Keypad only
Night Set	None	None	Keypad only	Keypad only

Table 3.7 Part Set Exit Warning 441 Buzzer Only.

PART SET EXIT WARNING — **442 KEYPAD BUZZER AND INTERNAL SOUNDER**				
	EXIT TONE	FAULT TONE	FAULT TONE AT END OF EXIT TIME	COMFORT TONE
Part Set	Both	Both	Both	Both
Night Set	None	None	Both	Both

Table 3.8 Part Set Exit Warning 442 Keypad and Sounder.

Group 4 — Option 5 External Bells in Part Set

When enabled (set to 1) the Bell and Strobe outputs activate during an alarm condition when the system is Part Set — enabled by default.

Internal sounders always sound.

Group 4 — Option 6 External Bells in Night Set

When enabled (set to 1) the Bell and Strobe outputs activate during an alarm condition when the system is Night Set — enabled by default.

Internal sounders always sound.

Group 4 — Option 7 Trigger Output

The Accord control panel has one programmable trigger output. The available programming options are outlined below. This option defaults to 473.

Programming Groups 1, 2 and 3

Programming Groups one to three are used to programme the eight zones for each of the three setting modes: Full, Part and Night Set. This allows zones to be bypassed or assigned different functions for each of the three setting conditions. The available zone types are:

No.	Zone Type	No.	Zone Type
0.	Not Used	4.	Walk Through
1.	Final Exit	5.	24 Hour Tamper
2.	Keyswitch	7.	PA Audible
3.	Intruder	9.	Fire

Zone Programming — Group 1 Full Set

FULL SET		
GROUP	ZONE	ZONE TYPE
1	1	(1)
1	2	(4)
1	3	(3)
1	4	(3)
1	5	(3)
1	6	(3)
1	7	(3)
1	8	(3)

Table 3.1 Full Set Group.

- The first digit entered is 1 for Full Set.
- The second digit is the zone number 1 — 8.
- The third digit is the zone type, see above.

Example: In Programming Mode press 1 + 2 + 3. This programmes zone 2 as an Intruder zone in the Full Set mode and is accompanied by two beeps, indicating a correct entry.

Note: The default programming is shown in brackets in Table 3.1.

To review the programming**:** press the 1 key followed by 00. The zone type is indicated on the keypad zone LEDs (1—8) for zone 1 (accompanied by one beep), then zone 2 (accompanied by one beep), etc.

Zone Programming — Group 2 Part Set

PART SET		
GROUP	ZONE	ZONE TYPE
2	1	(1)
2	2	(4)
2	3	(3)
2	4	(3)
2	5	(3)
2	6	(3)
2	7	(3)
2	8	(3)

Table 3.2 Part Set Group.

- The first digit entered is 2 for Part Set.
- The second digit is the zone number 1 — 8.
- The third digit is the zone type.

Example: In Programming Mode press 2 + 2 + 3. This programmes zone 2 as an Intruder zone in the Part Set mode and is accompanied by two beeps, indicating a correct entry.

Note: The default programming is shown in brackets in Table 3.2.

To review the programming**:** press the 2 key followed by 00. The zone type is indicated on the keypad zone LEDs (1—8) for zone 1 (accompanied by a beep), then zone 2 (accompanied by a beep), etc.

Zone Programming — Group 3 Night Set

NIGHT SET		
GROUP	ZONE	ZONE TYPE
3	1	(1)
3	2	(1)
3	3	(3)
3	4	(3)
3	5	(3)
3	6	(3)
3	7	(3)
3	8	(3)

Table 3.3 Night Set Group.

- The first digit entered is 3 for Night Set.
- The second digit is the zone number (1 — 8).
- The third digit is the zone type.

Example: In Programming Mode press 3 + 2 + 3. This programmes zone 2 as an Intruder zone in the Night Set mode and is accompanied by two beeps, indicating a correct entry.

Note: The defaults programming is shown in brackets in Table 3.3.

To review the programming**:** press the 3 key followed by 00. The zone type is indicated on the keypad zone LEDs (1—8) for zone 1 (accompanied by one beep), then zone 2 (accompanied by one beep), etc.

Programming System Options

System Programming — Group 4 System Options

- The first digit entered is 4 for System Options.
- The second digit is the required system option (1 — 8).
- The third digit is the option value.

SYSTEM OPTIONS		
GROUP	OPTION	DEFAULT
4	1=Exit Time (0=Final Contact, 1–9=Exit Time ×10 s).	(3)
4	2=Entry Time (1–9=Exit Time × 10 s).	(3)
4	3=Bell Cut-off Time — See **Table 3.5** Bell Cut-off Times.	(8)
4	4=Part Set Exit Warning (0=Silent, 1=Keypad, 2=Keypad and Internal Sounders).	(0)
4	5=External Bells and Strobe in Part Set (0=No, 1=Yes).	(1)
4	6=External Bells and Strobe in Night Set (0=No, 1=Yes).	(1)
4	7=Trigger Output — See **Option 7 — Trigger Outputs**.	(3)
4	8=Easy Set (0=No, 1=Yes)	(0)

Table 3.4 Group 4 System Options.

Group 4 — Option 1 Exit Time

This is the amount of time that the user has to exit the premises after the setting procedure has been initiated. Entering 411 will set the Exit Time to 10 seconds, 412 = 20 seconds, 413 = 30 seconds, etc. — up to 419 = 90 seconds.

If final contact set is required, enter 410. This gives infinite Exit Time. The system will only set when a Final Exit zone is closed after the exit timer has started.

Note: Exit Times for Part Set and Night Set are fixed at 30 seconds.

Group 4 — Option 2 Entry Time

This is the amount of time that the user has to enter the premises and unset the system. Entering 421 will set the Entry Time to 10 seconds, 422 = 20 seconds, etc. — up to 429 = 90 seconds.

Note: Entry Times for Part Set and Night Set are fixed at 30 seconds.

Group 4 — Option 3 Bell Cut-off Time

This is the amount of time that the sounders/bells activate after an alarm condition has occurred. To programme the Bell Cut-off Time enter 43 then a number 0 — 9, see Table 3.5 Bell Cut-off Times.

Note: Once the Bell Cut-off Time has expired the system will reset. Each zone is allowed to cause an alarm condition twice during one set period. After this the zone is automatically isolated.

Bell Cut-off Times
0 = Continuous Bells
1 = 1 minute
2 = 2 minutes
3 = 3 minutes
4 = 4 minutes
5 = 5 minutes
6 = 10 minutes
7 = 15 minutes
8 = 20 minutes
9 = 30 minutes

Table 3.5 Bell Cut-off Times.

Group 4 — Option 4 Part Set Exit Warning

This option allows the Part Set exit timer to be silent, audible through the keypad, or, audible through the keypad and internal sounder. Night Set will always have a silent exit timer but this option will affect the Night Set comfort tone (confirmation of set) and fault warnings given at the end of the Exit Time; Tables 3.6 to 3.8 show all possible options.